(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 23 December 2004 (23.12.2004)

PCT

(10) International Publication Number WO 2004/111094 A1

- (51) International Patent Classification⁷: 19/30, C08L 19/00
- C08C 19/44,
- (21) International Application Number:

PCT/US2004/018286

- (22) International Filing Date:
- 9 June 2004 (09.06.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/477,013

9 June 2003 (09.06.2003) US

- (71) Applicant (for all designated States except US): BRIDGE-STONE CORPORATION [JP/JP]; 10-1, Kyobashi 1-Chome, Chuo-Ku, Tokyo 104 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LAWSON, David [US/US]; 11621 Garden Lane, N.W., Uniontown, OH 44685 (US). RADEMACHER, Christine [US/US]; 714 Hearthstone Circle, Akron, OH 44320 (US). ROBERT-SON, Christopher [US/US]; 127 Birdwood Road, Akron, OH 44313 (US).
- (74) Agents: VASUTA, John et al.; Bridgestone Americas Holding, Inc., 1200 Firestone Parkway, Akron, OH 44317 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVED HYSTERESIS ELASTOMERIC COMPOSITIONS COMPRISING SEQUENTIALLY TERMINATED POLYMERS

(57) Abstract: Anionically-polymerized living polymers are sequentially functionalized with certain agents X' and Y'. A method of preparing a functionalized polymer comprising the steps of reacting the polymer with a functionalizing agent X', and then further reacting the polymer with a functionalizing agent Y'.